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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,816	02/19/2002	Mikito Nishii	111970	2904

7590

09/03/2003

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Alexandria, VA 22320

EXAMINER

HARDEE, JOHN R

ART UNIT

PAPER NUMBER

1751

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/049,816

Applicant(s)

NISHII ET AL.

Examiner

John R Hardee

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-- The MAILING DATE of this communication appears on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-14 and 16, drawn to a coolant for fuel cells.

Group II, claim(s) 15, drawn to a method of enclosing a coolant.

Group III, claim(s) 17, drawn to a method of decontaminating a coolant.

2. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Any feature which unites the inventions fails to make a contribution over the prior art in view of the references marked "X" in the PCT Search Report.

3. During a telephone conversation with Mr. Joel Armstrong on August 20 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-14 and 16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15 and 17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

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remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

5. The specification is objected to because it contains a number of terms which do not appear in contemporary chemical English. This may arise from a faulty translation. What does "deoxidization" mean? What is a "solution mixture"? What is an "ethanolamine series?" Aluminum doesn't rust. What is a "nonionic series substance"? The examiner recommends that the specification be revised by a translator conversant in current chemical English. Applicant is reminded to refrain from adding new matter to the specification.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant provides no indication of what sort of additives are alkalescent or acidulous, as opposed to acidic or alkaline. In the absence of any guidance from the specification,

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the examiner takes the position that water and glycols, being weak proton donors and acceptors, are both acidulous and alkalescent.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 2, 3, 5, 6, 9-11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Again, the problems here may arise from faulty translation. What is a "solution mixture"? What is an "ethanolamine series"? Aluminum doesn't rust. What is a "nonionic series substance"? What are "deoxidization" and "deoxidizing"? Are they different? What does "especially" mean in claim 10? In claim 9, it is not clear whether some process is being claimed, or if a property of the composition, its conductivity, is being claimed as a function of an additive.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 52-106,116 A. See the examples on p. 5. The pH limitation is met (see p. 6).

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Conductivity limitations appear to be met, to the best that claim 9 can be understood, in the absence of indications to the contrary. As all of the limitations of the claims have been met, this disclosure constitutes anticipation.

12. Claims 1-4, 8 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Perry et al., US 5,534,172. At col. 1, lines 59+, the reference discloses a cutting fluid comprising water, propylene glycol, an amine carboxylate and a nonionic surfactant. The glycol and water are both acidulous and alkalescent; the amine carboxylate has an acidic portion, a protonated amine, and an alkaline portion, a carboxylate salt; the pH of the composition is 8.3 before dilution and 8.6 afterward; and the limitations of product-by-process claims 13 and 14 do not appear to add patentable weight. Applicant is reminded that an invention defined by a product-by-process claim is a product. MPEP 806.05(f), *In re Bridgeford*, 149 USPQ 55. Burden is on the applicant to show product differences in product by process claims. *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985); *In re Best*, 195 USPQ 430 (CCPA 1977); *In re Fessman*, 180 USPQ 324 (CCPA 1974); *In re Brown*, 173 USPQ 685 (CCPA 1972).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 1-6, 8-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perry et al., US 5,534,172. The reference discloses cutting fluids comprising at least one antioxidant, one or more surfactants, one or more lubricants and water (abstract). Preferred antioxidants include triethanolamine. Amine carboxylates, comprising an acidic cation and a basic anion, are also disclosed (col. 3, lines 24+). The antioxidant may also preferably be a composition comprising amine borate, propylene glycol, amine carboxylate and nonionic surfactant. Suitable lubricants include the glycols disclosed at col. 4, lines 48+. Acids may be added to adjust the pH to 7-8 (col. 4,

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lines 65+). Deionized water is preferably used. Compositions using deionized water have a lower conductivity than those which use tap water, and this would appear to meet the limitations of claim 9, to the extent that this claim can be understood.

Regarding claim 16, it is common to recycle cutting fluids in the presence of air, which contains the inert gases nitrogen and argon. The limitations of product-by-process claims 13 and 14 do not appear to add patentable weight. See 102 rejection above.

17. Claims 1-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggers et al., US 4,354,949. The reference discloses hydraulic fluids comprising 90-99% water, a nonionic emulsifier and high viscosity lubricating oil (abstract).

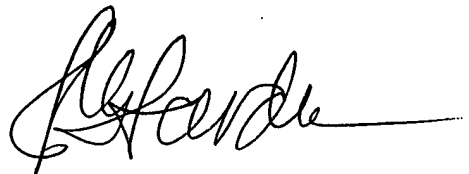
Suitable emulsifiers include alkoxylated alkyl phenols, fatty alcohols and fatty acids (col. 2, lines 21+). Compositions advantageously comprise anti-pitting ingredients, such as glycols and 3-amino-1,2,4-triazole (col. 3, lines 44+), and anti-rusting ingredients, such as ethanolamines (col. 3, lines 54+). When ethanolamines are used, it may be desirable to add acids, preferably in stoichiometric quantities. Examiner notes that when this is done, the resulting compositions will be of an approximately neutral pH. Suitable acids include acid phosphates (col. 4, lines 16+). Conductivity is not disclosed, but the examiner takes the position that, where the constituents of the prior art compositions and the claimed compositions are the same, then similar physical properties will follow. Regarding claim 16, it is common to recycle hydraulic fluids through hydraulic lines in the presence of air, which contains the inert gases nitrogen and argon. The limitations of product-by-process claims 13 and 14 do not appear to add patentable weight. See 102 rejection above.

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18. Any prior art made of record and not relied upon is of interest and is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (703) 305-5599. The examiner can normally be reached on Monday through Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Dr. Yogendra Gupta, may be reached at (703) 308-4708.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'J. Hardee', with a long horizontal line extending to the right.

John R. Hardee
Primary Examiner
August 26, 2003